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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,953	09/25/2003	Peter Jungklas Nybo	VOL 051 P2	7065
34232	7590	12/21/2004	EXAMINER	
MATTHEW R. JENKINS, ESQ. 2310 FAR HILLS BUILDING DAYTON, OH 45419			RAEVIS, ROBERT R	
			ART UNIT	PAPER NUMBER
			2856	

DATE MAILED: 12/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/670,953

Applicant(s)

NYBO ET AL

Examiner

Robert R. Raevis

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 October 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 12-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11, 21 and 22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

Election of Group I is acknowledged. Regarding REMARKS, it was noted that while claim 1 links I with IV, that claim 2 includes limitations ("to be delivered") not found in V, and that the apparatus can carry out a method whose second/subsequent pressure measured is that of delivered fluid.

The disclosure is objected to because of the following informalities:

On p. 13, how can "directly" (line 21) be correct, in view of the pump continuing to run ("continue to run" (line 18) during the  $t_1$  time period? Note that the sensor of Figure 1 required a time period of  $t_2$  for the liquid to hit the sensor again, yet the example of Figure 2 suggests that it is automatic/instantaneous. The "thus" (line 21) does not seem to follow.

On p. 13, should "of after" (line 19) read --off after--?

On p. 14, how can a single pressure detector "at the pressure side" (line 11 from last) take the place of a "differential pressure sensor "between the suction side and the pressure side" (line 5 from last)? After all, how is one assured that the pressure on the pressure side is equal to the pressure at the suction side? Note that a working pump in a closed fluid system necessarily effects the pressure both *upstream* and downstream of the pump, suggestive that a differential pressure sensor will provide a value different from a single pressure side located sensor.

Appropriate correction is required.

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Claims 1-11,21,22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 1, "detecting a differential pressure or for correcting a pressure value" is indefinite, as the two applications not equivalents. Also, where is the second pressure "corrected" (line 4) in the written specification? Is there some special meaning to the word "corrected"? A correction suggests a change, but the detected second pressure is not changed/corrected in any manner. That second pressure is measured, and even used or not depending upon conditions (as described on p. 12, Para 34). Maybe it's a pressure *related* value that is really corrected, but the Undersigned is not even confident of that.

As to claim 5, after "of the pressure sensor" (line 3) insert -- , --.

As to claim 7, "predefined" (line 3) is not correct. After all, the detailed written description suggests that t1 is calculated/determined ("determine" on line 6 of p. 12). IN fact, even claim 8 suggests that the time is "computed" (line 2 of claim 8).

As to claim 8, "computed" is not consistent with "predefined" (of claim 7). Also, "the level sensor" lacks antecedent basis.

As to claim 9, "predefined" (line 3) is not consistent with the detailed disclosures "determine" (p. 12, line 6).

are equivalents for the reason stated above regarding claim 1.

As to claim 7, "the stator housing" lacks antecedent basis.

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As to claim 14, what structure does the “means” exactly correspond to in the written specification and drawings. This is necessary to compare the prior art to that structure. Also, “detecting a differential pressure or for correcting a pressure value” is indefinite, as the two applications are not equivalents. Also, where is the pressure value corrected (“correcting” (line 5)) in the written specification? Is there some special meaning to the word “correcting”? A correction suggests a change, but the detected second pressure is not changed/corrected in any manner. That second pressure is measured, and even used or not depending upon conditions (as described on p. 12, Para 34). Maybe it’s a pressure *related* value that is really corrected, but the Undersigned is not even confident of that.

As to claim 18, “the pump housing or stator housing” lack antecedent basis.

As to claim 19, “side” (last line) of what structure?

Please renumber the last claim as claim 22 in any subsequently filed amendment.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,2,3 are rejected under 35 U.S.C. 102(b) as being anticipated by Arai.

Arai teaches a method of correcting a pressure value detected in a fluid (in chamber 2r of Figure 1) on the basis of another pressure, wherein at one point in time

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("period Ts in which the oil pressure theoretically becomes zero" on col. 2, lines 43-44) one detects a first pressure and another point in time ("at the time of pressure detection when pressure is controlled" on col. 2, lines 66-67) a second pressure, and the second pressure is "corrected" (col. 3, line 3) on the basis of the first pressure

As to claim 2, pressure sensor 3 provides a level of pressure in from source P ("pump" on col. 4, line 12), the sensor fluidly connected to the interior of the pump.

As to claim 3, note the position of sensor 3 above the fluid.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arai.

As to claim 4, the pressure read by sensor 3 is not position specific, and thus, it would have been obvious to place the sensor 3 anywhere below the top level of the cylinder 2 (and thus below the top surface) below the cylinder, in an effort to minimize the length of signal lines between the sensor 3 and circuitry 34.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Irvin calibrates a manometer 10 that's associated with a level sensor 45 and pump 40, by zeroing by employing switch 41 at a time different from the time of measuring liquid level of liquid 44.

Tamanka calibrates a pressure sensor by employing a pressure at a "predetermined state of operation" (col. 1, line 49) as a standard.

Burns et al calibrate a Delta-Pressure transducer 26 by use of a switch 10.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert R. Raevis whose telephone number is 571-272-2204. The examiner can normally be reached on Monday to Friday from 7am to 4pm. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
RAEVIS